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SURVEY DATA
and
PROPOSED MANAGEMENT PROGRAM
for
SOLID WASTE DISPOSAL
in
CUMBERLAND COUNTY

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SECTION I - Introduction

In the overall environmental sanitation picture of rapidly expanding urban communities of North Carolina, the problem of how to handle the estimated 4,511,000 tons of refuse produced annually offers one of our greatest challenges. This is a problem of the community as well as the individual and continual disregard on the part of either will certainly result in unnecessary disease and annoyance. Lack of understanding, carelessness and indifference is largely responsible for our present problems. Frequently, individual effort is fruitless without public control, but, at the same time, efforts of public health agencies are doomed to failure without support of individual citizens.

Refuse which is contaminated with disease organisms originating in the home or institutions provides food and shelter for many of our most important public health pests, insects and rodents. It is, therefore, necessary that refuse be handled in an acceptable manner from the point of origin to that of disposal. Refuse, at the point of origin, is largely the responsibility of the producer and must be stored in an approved manner. Refuse collection is accomplished in three ways: (1) by the individual, (2) by a governmental agency using public funds, and (3) by private contract garbage collectors who are paid by the individual receiving the service. Refuse disposal is normally accomplished by (1) the individual who utilizes his own land or disposal areas belonging to private or public agencies, (2) by governmental agencies who utilize publicly-owned disposal areas or (3) by private collectors who provide their own disposal area or utilize that of a public agency. No longer is the old-fashioned, insanitary refuse dump acceptable in today's society as a means of refuse disposal. An open dump is aesthetically offensive because of smoke and odors and is responsible for the reduction

of adjacent land values, and are gradually being replaced by the sanitary landfill or other sanitary means of refuse disposal.

The entire process of refuse handling must be carried out in such a manner that the public health of the community is protected, that the extent and character of the service is in accord with the desires of the people, and that the operation is conducted effectively and economically.

SECTION II - Legal Aspects

Authority to Regulate

Boards of Health

County boards of health have the authority to regulate the collection and disposal of refuse. This authority is based on the broad powers as set forth in G. S. 130-17 which permits boards of health to make rules and regulations as necessary to protect and to advance public health. Such regulations typically cover three major areas:

- (1) The type of container in which garbage is stored.
- (2) Sanitation standards for equipment used in the collection of refuse.
- (3) Standards and methods for disposal.

Attached to this report is a copy of an ordinance that has been prepared for adoption by the local boards of health for the control of storage, collection, and disposal of refuse.

Boards of Commissioners

County boards of commissioners have authority to regulate under G. S. 153-272 through 275, the collection and disposal of refuse by private persons and firms outside municipal boundaries.

In exercising this authority, the board of commissioners may:

- (1) Issue licenses or permits for the collection and disposal of refuse.

- ... (2) Prohibit collection and disposal by unlicensed persons.
- .. (3) Grant licensed persons exclusive rights to collect in designated areas.
- ... (4) Regulate the fees charged for private collection services.
- .. (5) Operate collection and disposal services.

Authority to Finance

The 1967 General Assembly amended G. S. 153-77 and G. S. 153-80 of the County Finance Act to authorize the issuance of bonds for sanitary landfills and for vehicles and equipment.

SECTION III - The Refuse Problem in Cumberland County

The survey of Cumberland County was completed in 1968 and the data has been summarized on the attached table. In addition, the following general information was gathered in regard to the storage, collection, and disposal of refuse.

Storage: The Cumberland County Board of Health has passed an ordinance governing refuse storage, collection, and disposal. Due to the shortage of personnel at the Cumberland County Health Department, this ordinance is not generally enforced. Refuse is stored on the ground, in 55 gallon barrels, or in other type containers, many of which have no lids. This provides ideal conditions for the breeding and feeding of flies, rats and other pests.

Collection: The refuse in the municipalities and in a large part of Cumberland County is collected twice a week. All municipalities, with the exception of the Town of Stedman, are using their own manpower for collection. Stedman is using the services of a private collector. The method of collection should be the municipality's decision.

Disposal: The study reveals that an estimated 221,939 tons of refuse, household, commercial, industrial, and institutional, is being collected annually by municipalities and private collection firms in Cumberland County. This amount of refuse is being placed at five land disposal sites shown on the enclosed map. All sites are operated as open dumps except that of the City of Fayetteville which compacts and covers the refuse.

The study further reveals that there are 58,000 people living in rural Cumberland County who have no collection or disposal services. Computing their annual production rate at less than the urban dweller, an estimated 31,809 tons of refuse is produced by them annually. Part of this tonnage is being burned

and part is buried on the farm, but a large part is cluttering our farms, woodlands, streams, and highways.

SECTION IV - Recommendations

To protect the health of the people of Cumberland County and to prevent the depreciation of the County's environment, the following plan for storage, collection, and disposal of refuse is recommended.

Storage: That the Cumberland County Health Department strictly enforce the ordinance passed by the Cumberland County Board of Health governing the storage, collection and disposal of refuse in Cumberland County.

Collection: It is recommended that collection in unincorporated areas of Cumberland County be left to private enterprise. The private agencies should be regulated under authority as stated in Section II of this report.

Disposal: In preparation of recommendations for the disposal by sanitary landfill, it is necessary to consider length of haul, volume of refuse, and cost to County and municipalities. Based on these factors, it is recommended that:

- (1) The Cumberland County Board of Commissioners, in cooperation with the three municipalities, provide five sanitary landfills in the general vicinity of the proposed locations shown on the enclosed map to serve the total population other than that of Fayetteville.

- (2) The City of Fayetteville continue to operate its own sanitary landfill. Fayetteville's volume of refuse is adequate to be economical for them to continue to operate independently.

If the private collectors elect to continue operating their disposal site, it should meet all the requirements for a sanitary

landfill

(3) After the County sites are opened, the present dumps should be closed and covered with two feet of compacted earth. Note: Soon after these dumps are closed and before they are covered with earth they should be heavily baited with rat poison for at least a week. This will prevent the rat population from migrating to other areas.

There is nothing in these recommendations that would prevent the individual from disposing of his own refuse as long as it is done in a manner approved by the Health Director.

Supervision: In order that adequate supervision may be provided, it is recommended that the Cumberland County Health Department be put in charge of the operation. This would consist of: promotion of this program, education of the public, and supervision of the landfill operation. One additional man should be added to the staff to work in this program.

SECTION V - Cost Analysis

The following cost estimates are based on the operation of five (5) sanitary landfills for the total population of Cumberland County other than the City of Fayetteville.

Capital Investment

Sites

5 sites - 20 acres each
(No estimated cost was made on land.)

Equipment

Four (4) high lift loaders with multi-purpose buckets (International 175B or equal)	@ \$30,000 each	\$120,000
One (1) dump truck	@ \$ 5,000 each	5,000
One (1) tilt body trailer	@ \$ 3,000 each	3,000

Structures

Five (5) structures to provide shelter for the equipment and office space	@ \$ 3,000 each	<u>\$ 15,000</u>
	Total	\$143,000

Annual Operation Cost

Employment

Four (4) loader operators	@ \$ 6,000 each	\$ 24,000
Five (5) site managers (This can be a retired or handicapped person)	@ \$ 2,000 each	10,000
Fuel and Repairs	@ \$ 3,500 each	14,000
Equipment Depreciation	@ \$ 3,500 each	14,000
Miscellaneous (site preparation, access roads, signs, etc.)	@ \$ 4,000 each	<u>20,000</u>
	Total	\$ 82,000

Note: After the first year, the miscellaneous item should be considerably lower. Based on anticipated volume of solid waste, it is recommended that the high lift loaders be used as follows: A high lift loader would be located at site one, two and three. Compaction and covering would be carried out daily. Sites four and five would be served by one high lift loader. Compaction and covering would be done on an every other day basis.

The site manager should be at each site during operating hours. They would direct the placement of refuse, thus saving time for the loader operator.

SECTION VI - Conclusion

(1) The problem of refuse disposal in Cumberland County is due to a number of factors. There are more disposable items on the market today than ever existed in the past as many containers are no longer the returnable and reusable types, but are disposables. The pounds of disposed items per capita per day have doubled over the past decade. Regardless of whether the area of discussion is rural or urban, the disposable items are still the problem, only

the quantity changes. The rapid rise of population in Cumberland County's urban and rural areas is bringing the disposal problem to a focal point, and now appropriate action must be initiated.

(2) This is a problem that affects the total population from the farmer who is being dumped upon to the person who lives near an open, burning dump.

(3) The Insect and Rodent Control Section of the State Board of Health, through your local Health Department, is available to assist in any way possible.

(4) The recommendations of this report were made to meet the anticipated needs for a ten-year period. Before the end of this time, exhaustive studies of new methods should be made and incorporated in plans for the future.

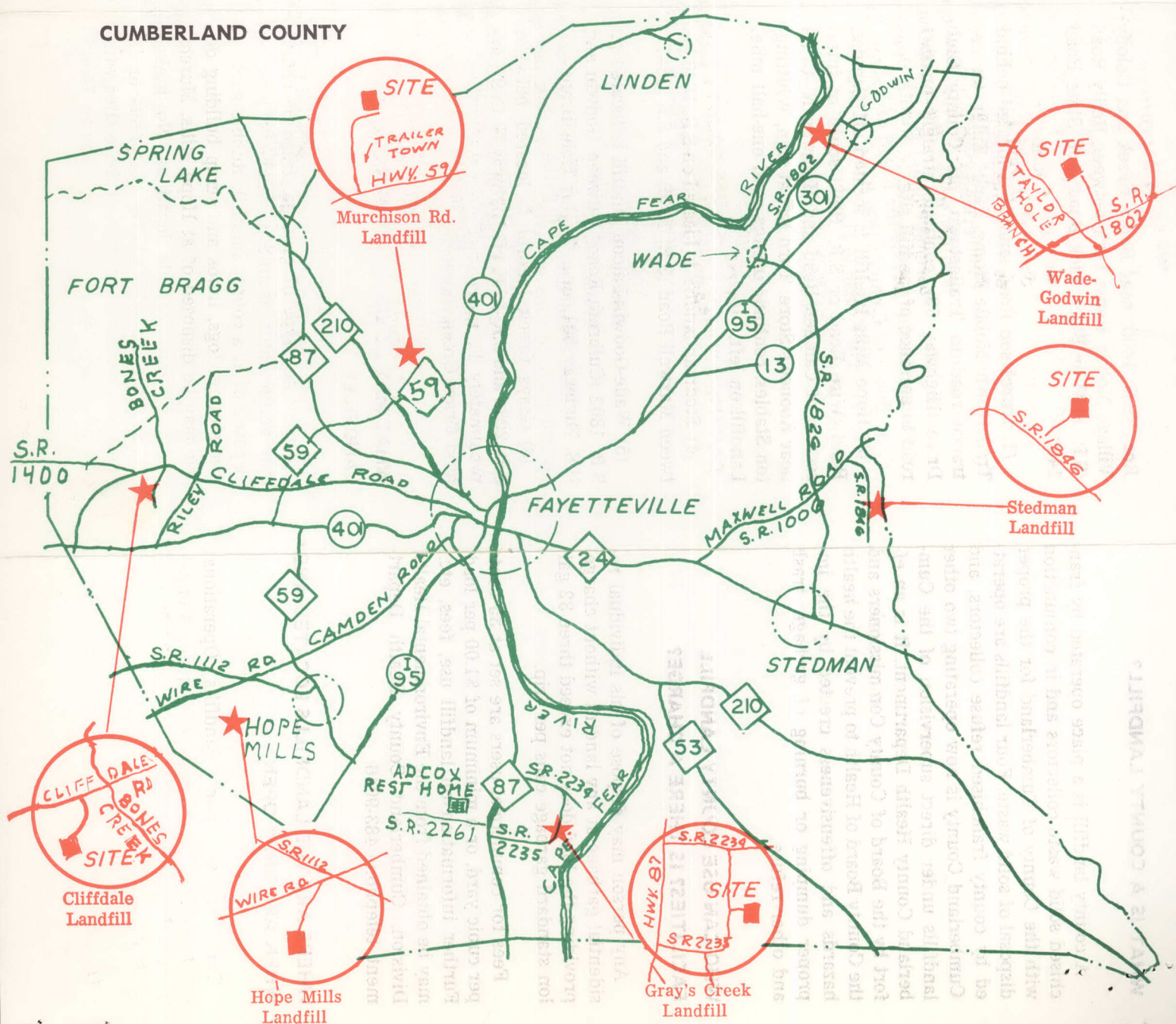
Total Population: 218,000
Urban: *118,000 Rural: 100,000

Cumberland County

NOTES:

1. Private collectors give pick up service to approximately 45% of the rural population.

OD - Open, D.



WHAT IS A COUNTY LANDFILL?

A county landfill is a place operated by franchised solid waste collectors and in conjunction with the County of Cumberland for the proper disposal of solid waste. Four landfills are operated by county franchised refuse collectors, and Cumberland County is now operating two other landfills under direct supervision of the Cumberland County Health Department. It is an effort by the Board of County Commissioners and the County Board of Health to prevent the health hazards and offensiveness created by the improper dumping or burning of garbage, trash and other refuse.

WHO CAN USE COUNTY LANDFILL FACILITIES? IS THERE A CHARGE?

Any person may dispose of his individual residential garbage at any landfill without charge, providing the load does not exceed three 32 gallon standard garbage cans per trip.

Fees for commercial users are set at 35 cents per cubic yard, or a minimum of \$1.00 per load. Further information on landfill use, fees, etc., may be obtained from the Environmental Health Division, Cumberland County Health Department, telephone 483-9046.

WHERE ARE THE LANDFILLS LOCATED AND WHEN ARE THEY OPEN?

There are six county landfills. Operational hours are 9:00 a.m. until 5:00 p.m., Monday through Friday, and from 9 a.m. until 1:00 p.m. on Saturday.

(1) Clifffdale landfill is located on Clifffdale

Road (S.R. 1400) near Bones Creek and Colony Village Mobile Home Park between Reilly Road (S.R. 1403 or Black Jack Road) and State Road 1402.

(2) Murchison Road landfill is located behind Trailertown Mobile Home Park. Enter on entrance road to Trailertown, off County Club Drive (Highway 59), continue straight on dirt road to entrance of landfill site.

(3) Hope Mills landfill is located off Camden Road (Wire Road or S.R. 1003) south of intersection of Camden Road and Highway N. C. 59 near Koonce's Store. Turn left at sign, Whittington Stables, continue on dirt road one-half mile. Landfill on left.

(4) Stedman landfill is located on S.R. 1846 between Maxwell Road (S.R. 1006) and S.R. 1847.

(5) Wade-Godwin-Falcon landfill is located on S.R. 1802 (Culbreth Road) between Godwin and U.S. Highway 301, near Taylor Hole Branch.

(6) Grays Creek landfill is located between S.R. 2234 and S.R. 2235 off Highway N. C. 87, approximately 11 miles south of Fayetteville, behind Grays Creek Superette.

WHAT MAY BE DISPOSED OF AT A COUNTY LANDFILL?

Almost any type of garbage, trash or refuse that accumulates around a residence may be disposed of at a county landfill. Rubble such as tree stumps, logs, limbs and scrap building debris may be disposed of at Hope Mills, Murchison Road and Clifffdale locations. No junked vehicles or tires allowed. No poisonous or inflammable material accepted at these sites without permission of Cumberland County Health

Director. Special arrangements must be made before disposing of large animals.

A special disposal site is open for disposal of tires only between the hours of 9:00 a.m. and 4:00 p.m., Monday through Friday. A permit is required and a small fee is charged. Permits may be obtained at Cumberland County Health Department between the hours of 8:00 a.m. and 3:00 p.m.

WHAT REGULATIONS CONTROL THE ACCUMULATION AND DISPOSAL OF SOLID WASTE?

Cumberland County Board of Health regulations prohibit the accumulation of garbage or refuse on any premises except when stored in an approved container. The regulations also prohibit the disposal of garbage or refuse except in an approved sanitary manner. When an owner or tenant permits garbage or refuse to accumulate on his property, he is responsible for its proper disposal even if it was dumped there without his permission. His only recourse is to be willing and able to prove in the courts who dumped the garbage or refuse and that it was without his permission.

WHO CAN I CONTACT TO REMOVE SOLID WASTES FROM MY PREMISES ON A SCHEDULED BASIS?

There are two franchised collectors operating in Cumberland County. They are Livers Sanitation Service and Louis Sanitation Service, Inc.

PLEASE KEEP OUR COUNTY CLEAN! 4/71

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